SEMESTER END EXAMINATION APRIL-MAY, 2026

Course Name: - B.Tech **Semester:- 2th**

Paper Name: - Building Material and Construction **Paper Code:- NCE-201**

Time - 3 Hrs + 20 minutes per hour extra time for V.I. & examinees with writer. **Max Marks-70**

Instructions:

- The question paper consists of three sections namely A, B, C. All sections are compulsory.
- Section A- Each question carries **3 mark**. **All questions are compulsory**.
- Section B- Answer any **5 out of 7** given questions. Each question carries **7 marks**.
- Section C- Answer any **2 out of 3** given questions. Each question carries **10 marks**.
- A non-programmable calculator is allowed

Section – A
Multiple Choice Questions

1. Answer all the following questions. **5x3 =15**

i) Water absorption of class I brick after 24 hours of immersion in water should not exceed __ of self-weight

(a) 25%

(b) 20%

(c) 18%

(d) 22%

ii) The moisture content in a well-seasoned timber is:

(a) 5 to 10 %

(b) 12 to 15 %

(c) 10 to 12 %

(d) 30 to 50 %

iii) For Portland cement of 43 grade, 28-day mean compressive strength should be

(a) 43 MPa

(b) 43. 5 MPa

(c) 33 MPa

(d) 38. 5 MPa

iv) The test most suitable for concrete of very low workability is

(a) Slump test

(b) Compaction factor test

(c) Vee-Bee Test

(d) All options are correct

v) Strength of concrete is directly proportional to

(a) cement-water ratio

(b) sand-cement ratio

(c) water-aggregate ratio

(d) All option are correct

Section – B
Short Answer Questions

2. Answer any five of the following questions. **5x7=35**

i. (a) What do you mean by seasoning of timber? What are the advantages and methods of seasoning of timber?

ii. Define: (i) plinth, (ii) Initial setting time (iii) Final Setting Time, (iv) puzzolana, (v) soundness of cement, (vi) Segregation, (vii) Bleeding.

iii. Describe four common defects in timber? Explain Plastics?

iv. Define floor? What are the types of floors?

v. What are the various ingredients of paints? State the functions of each of them.

vi. What is masonry? explain any four types classification based on N.B.C.

vii. Draw and explain the different components of Macro structure of timber?

Section – C
Descriptive Questions

3. Answer any two of the following question. **2x10=20**

i) (a) Discuss Bogue's compound of cement. Also write the chemical composition of cement.

(b) What is the size and weight of standard brick?

ii) (a) What are the advantages of brick masonry over stone masonry?

(b) Order of bogus compound that cement react with water (rate of hydration and heat of hydration).

(c) Difference between softwood and Hardwood?

iii) (a) Describe briefly the following:
(i) Vee-Bee Test
(ii) compacting factor test.

(b) What is distempering? Name any four effects of dampness?

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